



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,878	11/26/2003	Hiroshi Nakamoto	NAKA3010/EM	6011

23364 7590 12/06/2006

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER

TILL, TERRENCE R

ART UNIT	PAPER NUMBER
----------	--------------

1744

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/721,878	Applicant(s) NAKAMOTO ET AL.	
	Examiner Terrence R. Till	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-14 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/03, 11/05</u> | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7-10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese patent to Murata et al. (JP 5-192278, cited in IDS- abstract only).

3. The patent to Murata et al. discloses an electric blower 8 mounted in an electric blower chamber 9 for generating a suction air stream; a dust collecting unit 10 in a dust collecting chamber 11 for collecting dirt particles contained in the suction airstream, wherein the suction airstream passing through the dust collecting unit in the electric blower flows in an approximately linear path (see figure 1) and a dust removing unit 13,14 located in the dust collecting chamber acting on the dust collecting part for removing dirt particles adhered to the dust collecting unit. Murata et al. also disclose the electric blower chamber communicates with the dust collecting chamber through a communication hole (partition dividing dust collecting chamber and electric blower chamber), which is adjacent to the dust removing unit. The dust collecting part has a polyhedral configuration, when expanded by the airstream, and is made of a soft material.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda et al. (US 3,591,888, cited in IDS).

Art Unit: 1744

5. The patent to Takeda et al. discloses an electric blower 2 mounted in an electric blower chamber 1 for generating a suction air stream; a dust collecting unit 9 in a dust collecting chamber 8 for collecting dirt particles contained in the suction airstream, wherein the suction airstream passing through the dust collecting unit in the electric blower flows in an approximately linear path (see figure 2) and an air permeable dust removing unit 25' located in the dust collecting chamber acting on the dust collecting part for removing dirt particles adhered to the dust collecting unit. Takeda et al. also disclose the electric blower chamber communicates with the dust collecting chamber through a communication hole (in plate 26), which is adjacent to the dust removing unit.

6. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al. (US 3,841,067).

7. The patent to Kato et al. discloses an electric blower 16 mounted in an electric blower chamber 10 for generating a suction air stream; a dust collecting unit 30 in a dust collecting chamber 20 for collecting dirt particles contained in the suction airstream, wherein the suction airstream passing through the dust collecting unit in the electric blower flows in an approximately linear path (see figure 1) and a dust removing unit 50-54 located in the dust collecting chamber acting on the dust collecting part for removing dirt particles adhered to the dust collecting unit. Kato et al. also disclose the electric blower chamber communicates with the dust collecting chamber through a communication hole 40, which is adjacent to the dust removing unit and is considered to disclose the dust removing unit has an air permeability (hollow coiled spring) and is detachably connected to the dust removing unit, as the coiled spring appears friction fit over the support element 52.

Art Unit: 1744

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent to Murata et al. (JP 5-192278, cited in IDS- abstract only) in view of Steiner et al. (US 5,035,024).

Art Unit: 1744

12. The patent to Murata et al. discloses all the recited subject matter with exception of at least one portion of the main body being transparent or translucent. The patent to Steiner et al. discloses a hand-held vacuum in which the dust collection unit 7 is made of a transparent plastic resin. It would have been obvious to a person skilled in the art to modify the main body (canister) of Murata et al. to be transparent so that the user can see the amount of debris collected by the vacuum cleaner (see Steiner et al., column 5, lines 40-45).

Allowable Subject Matter

13. Claims 12-14 are allowed.

14. The following is an examiner's statement of reasons for allowance: With respect to claim 12, the prior art does not disclose the claimed combination, particularly an indication unit including a light display unit indicating an operation state of the dust removing unit. Most of the prior art is mechanically moved and would not allow for a light display unit. The other prior art that uses electromagnetic vibration also does not suggest employing a light display unit.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

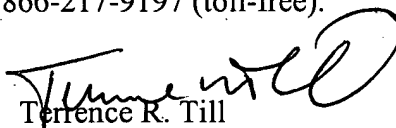
15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Miyake et al., McClure and European patent to Steckman disclose other filter cleaning devices.

Art Unit: 1744

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys P. Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Terrence R. Till
Primary Examiner
Art Unit 1744

trt